

### **DEFENSE INFORMATION SYSTEMS AGENCY**

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 $\frac{\text{IN REPLY}}{\text{REFER TO:}}$  Joint Interoperability Test Command (JTE)

10 Aug 12

#### MEMORANDUM FOR DISTRIBUTION

SUBJECT: Extension of the Special Interoperability Test Certification of Interactive

Intelligence<sup>®</sup> Inc. from Customer Interaction Center<sup>TM</sup> (CIC) Release 3.0 Software

Update (SU) 9 to CIC Release 3.0 SU14

References: (a) DoD Directive 4630.05, "Interoperability and Supportability of Information Technology (IT) and National Security Systems (NSS)," 5 May 2004

(b) CJCSI 6212.01E, "Interoperability and Supportability of Information Technology and National Security Systems," 15 December 2008

(c) through (g), see Enclosure

- 1. References (a) and (b) establish the Defense Information Systems Agency (DISA), Joint Interoperability Test Command (JITC), as the responsible organization for interoperability test certification.
- 2. The Interactive Intelligence® Inc. CIC Release 3.0 SU9 is hereinafter referred to as the system under test (SUT). The SUT meets all of its critical interoperability requirements and is certified for joint use within the Defense Information System Network (DISN) as a Private Branch Exchange (PBX) 2. The PBX 2 switches have no Military Unique Features (MUFs) and can only serve Department of Defense (DoD), non-DoD, non-governmental, and foreign government users having no missions or communications requirement to ever originate or receive Command and Control (C2) communications. Since PBX 2s do not support MUF requirements detailed in Reference (c), connectivity to the DSN is not authorized until a waiver is granted by the Chairman of the Joint Chiefs of Staff (CJCS) for each site in accordance with Reference (d). No other configurations, features, or functions, except those cited within this report, are certified by the JITC. This certification expires upon changes that could affect interoperability, but no later than 8 April 2014, which is three years from the date the DISA Field Security Operations (FSO) provided a positive Certification and Accreditation (CA) recommendation for the original certification.
- 3. The extension of this certification is based upon Desktop Reviews (DTRs) 6, 7, and 8. The original certification is based on interoperability testing, review of the vendor's Letters of Compliance (LoC), and FSO CA recommendation. Interoperability testing of the SUT was conducted at JITC's Global Information Grid Network Test Facility at Fort Huachuca, Arizona, from 22 through 30 July 2010 and documented in Reference (e). Review of vendor's LoC was completed on 30 March 2011. The FSO provided a positive CA Recommendation on 5 April 2011 based on the security testing completed by DISA-led IA test teams and published in a separate report, Reference (f). The DTR updates are depicted in Table 1. These DTR requests

required verification and validation (V&V) testing. JITC conducted V&V testing for these DTRs from 5 through 23 December 2011 and from 30 April through 11 May 2012. Based on the results of this testing and the DISA CA approval of the IA posture for these DTRs, JITC approves these DTRs. The DISA CA approved the IA posture for DTR 6 on 11 July 2012. The DISA CA approved the IA posture for DTRs 7 and 8 on 9 July 2012.

**Table 1. SUT DTR Descriptions** 

Interac	tive Intelligence <sup>®</sup> Inc. Customer Interaction Center <sup>TM</sup> (CIC) Release 3.0 Software Updates			
DTR	DTR Description			
6	This DTR updates the SUT from Software Version CIC 3.0 SU9 to CIC 3.0 SU11. SU11 includes periodic maintenance			
	updates. Additionally, this update includes:			
	New Audio Codes M800 Line Side and Trunk Side Gateways.			
	Upgrades server to Windows 2008 R2 64 bit, and clients to Windows 7 64 bit.			
	Includes fixes to address IA PoAMs.			
7	This DTR updates the SUT from Software Version CIC 3.0 SU11 to SU12, which includes periodic maintenance updates.			
8	This DTR updates the SUT from Software Version CIC 3.0 SU12 to SU14, which includes periodic maintenance updates.			
	C 3.0 release, which is currently fielded, is not IPv6 capable. The CIC 3.0 SU 11, 12, and 14 do not address IPv6 ISA adjudicated this as minor on 22 May 2012 with the vendor's POA&M to provide IPv6 capability in CIC 4.0 SU02, refer			
LEGEND:				
CIC Custo	omer Interaction Center PoAM Plan of Action and Milestones			
DTR Desk	top Review R2 Release 2			
IA Inform	ation Assurance SU Software Update			
IPv6 Intern	net Protocol version 6 SUT System Under Test			

- 4. The interoperability test summary of the SUT is indicated in Table 2. The PBX 2 Capability Requirements (CRs) and Feature Requirements (FRs) are listed in Table 3. This interoperability test status is based on the SUT's ability to meet:
  - a. DSN services for Network and Applications specified in Reference (c).
- b. PBX 2 interface and signaling requirements for trunks/lines specified in Reference (d) verified through JITC testing and/or vendor submission of LoC.
- c. PBX 2 CRs/FRs specified in Reference (d) verified through JITC testing and/or vendor submission of LoC.
- d. The overall system interoperability performance derived from test procedures listed in Reference (g).

**Table 2. SUT Interoperability Test Summary** 

	DSN Trunk Interfaces				
Interfac	e & Signaling	Critical	Status	Remarks	
T1 C.	AS (DTMF)	No <sup>1</sup>	Not Tested	This interface is not supported by the SUT and is not required for a PBX 2.	
	AS (DTMF)	No (Europe only)	Not Tested	This interface is not supported by the SUT and is not required for a PBX 2.	
	ON PRI NI 1/2 (SI T1.607)	No <sup>1</sup>	Certified	Met all critical CRs and FRs however is not required for a PBX 2. <sup>2</sup>	
	ISDN PRI J-T Q.931)	No (Europe only)	Not Tested	This interface is not supported by the SUT and is not required for a PBX 2.	
			DSN 1	Line Interfaces	
Interfac	e & Signaling	Critical	Status	Remarks	
	ire Analog 506-CORE)	Yes	Certified	Met all critical CRs and FRs.	
	BRI NI 1/2	No	Not Tested	This interface is not supported by the SUT and is not required for a PBX 2.	
2-Wire Pr	oprietary Digital	No	Not Tested	This interface is not supported by the SUT and is not required for a PBX 2.	
(Etherne	VoIP et IEEE 802.3u)	No	Certified	Met all critical CRs and FRs with the following minor exceptions: The SUT with release CIC 3.0 SU 14 did not support IPv6 dual stack requirements. <sup>3</sup>	
			<b>DSN Featu</b>	res and Capabilities	
Featur	Feature/Capability		Status	Remarks	
Comn	non Features	Yes	Certified	Met all critical CRs and FRs.	
A	ttendant	No	Certified	Met all critical CRs and FRs.	
Pul	olic Safety	Yes	Certified	Met all critical CRs and FRs for the basic 911.	
Call	Processing	Yes	Certified	Met all critical CRs and FRs.	
ISD	N Services	No	Certified	Met all critical CRs and FRs with the T1 ISDN PRI interface.	
Sync	hronization	Yes	Certified	Met all critical CRs and FRs.	
Vo	IP System	No	Certified	Met all critical CRs and FRs with the following minor exception: The SUT with release CIC 3.0 SU 14 did not meet all IPv6 capability requirements. <sup>3</sup>	
S	Security	Yes	Certified	See note 4.	
			Netw	ork Gateways	
Gateway	Interface & Signaling	Critical	Status	Remarks	
	T1 CAS (DTMF)	No <sup>1</sup>	Not Tested	This interface is not supported by the SUT and is not required for a PBX 2.	
	E1 CAS (DTMF)	No (Europe only)	Not Tested	This interface is not supported by the SUT and is not required for a PBX 2.	
PSTN	T1 ISDN PRI NI 1/2 (ANSI T1.607)	No <sup>1</sup>	Certified	Met all critical CRs and FRs.	
	E1 ISDN PRI (ITU-T Q.931)	No (Europe only)	Not Tested	This interface is not supported by the SUT and is not required for a PBX 2.	
	Ground Start Line (GR-506-CORE)	No	Not Tested	This interface is not supported by the SUT and is not required for a PBX 2.	
	Loop Start Line (GR-506-CORE)	No	Certified	Met all critical CRs and FRs with an LoC.	

# **Table 2. SUT Interoperability Test Summary (continued)**

## NOTES:

- The UCR 2008 does not specify a required interface for a PBX 2. A PBX 2 switch must support at least T1 CAS or T1 PRI.
   The vendor included the Audiocodes M800 T1 PRI with Patch 6.20A.059 as part of the SUT to accommodate secure call capability.
- 3. The CIC 3.0 release, which is currently fielded, is not IPv6 capable. The CIC 3.0 SU 11, 12, and 14 do not address IPv6 functionality. DISA adjudicated this as minor on 22 May 2012 with the vendor s POA&M to provide IPv6 capability in CIC 4.0 SU02.
- 4. Security is tested by DISA-led Information Assurance test teams and published in a separate report, Reference (f).

LEGEND:			
802.3u	Standard for carrier sense multiple access with	ITU-T	International Telecommunication Union -
	collision detection at 100 Mbps		Telecommunication Standardization Sector
ANSI	American National Standards Institute	LoC	Letters of Compliance
ASD/NII	Assistant Secretary of Defense for Networks and	LSSGR	Local Access and Transport Area (LATA) Switching
	Information Integration		Systems Generic Requirements
BRI	Basic Rate Interface	Mbps	Megabits per second
CAS	Channel Associated Signaling	NI 1/2	National ISDN Standard 1 or 2
CRs	Capability Requirements	OAM	Operations Administration and Management
DISA	Defense Information Systems Agency	PBX 2	Private Branch Exchange 2
DSN	Defense Switched Network	PRI	Primary Rate Interface
DSS1	Digital Subscriber Signaling 1	PSTN	Public Switched Telephone Network
DTMF	Dual Tone Multi-Frequency	Q.931	Signaling Standard for ISDN
E1	European Basic Multiplex Rate (2.048 Mbps)	SUT	System Under Test
FRs	Feature Requirements	T1	Digital Transmission Link Level 1 (1.544 Mbps)
GR	Generic Requirement	T1.607	ISDN Layer 3 Signaling Specification for Circuit Switched
GR-506-CORE	LSSGR: Signaling for Analog Interfaces		Bearer Service for DSS1
IEEE	Institute for Electrical and Electronics Engineers	UCR	Unified Capabilities Requirements
IPv6	Internet Protocol version 6	VoIP	Voice over Internet Protocol
ISDN	Integrated Services Digital Network		

**Table 3. PBX 2 Requirements** 

	DSN Trunk Interfaces				
Interface	Critical		Requirements Required or Conditional	References	
T1 CAS (MFR1, DTMF, DP)	No No (Europe only)	Trunking	<ul> <li>Direct Inward Dialing (C)</li> <li>National ISDN 1/2 Primary Access (C)</li> <li>ITU-T ISDN Primary Access (Europe only) (C)</li> <li>Normal Wink Start Operations (C)</li> <li>Glare Operation (C)</li> <li>Abnormal Wink Start (C)</li> <li>Glare Resolution (C)</li> <li>Call for Service Timing (C)</li> <li>Guard Timing (C)</li> <li>Satellite Interface (C)</li> <li>Disconnect Control (C)</li> <li>Reselect and Retrial (C)</li> <li>Off-Hook Supervision Transition (C)</li> <li>Dial-Pulse Signals (C)</li> <li>DTMF Signaling (C)</li> <li>DSN ISDN User-to-Network Signaling (C)</li> <li>Application (C)</li> <li>Physical Layer (C)</li> <li>Data Link Layer (C)</li> <li>Data Link Connection (C)</li> <li>Peer-to-Peer Procedures of Data-Link Layer (C)</li> <li>Layer 3 DSN User-to-Network Signaling (C)</li> </ul>	UCR Section 5.2.1.3.2     UCR Section 5.2.1.3.4.1     UCR Section 5.2.1.3.4.2     UCR Section 5.2.4.3.3.1.1     UCR Section 5.2.4.3.3.1.2     UCR Section 5.2.4.3.3.2.2     UCR Section 5.2.4.3.3.2.2     UCR Section 5.2.4.3.3.2.2     UCR Section 5.2.4.3.5     UCR Section 5.2.4.3.6     UCR Section 5.2.4.3.7     UCR Section 5.2.4.3.8     UCR Section 5.2.4.3.9     UCR Section 5.2.4.3.10     UCR Section 5.2.4.4.1     UCR Section 5.2.4.4.1     UCR Section 5.2.4.7.1     UCR Section 5.2.4.7.1     UCR Section 5.2.4.7.1.1     UCR Section 5.2.4.7.1.2     UCR Section 5.2.4.7.1.3     UCR Section 5.2.4.7.1.3.1     UCR Section 5.2.4.7.1.3.1     UCR Section 5.2.4.7.1.3.1     UCR Section 5.2.4.7.1.3.2     UCR Section 5.2.4.7.1.3.2	
TI ISDN PRI NI 1/2 (ANSI T1.607)	No		<ul> <li>Layer 3 DSN User-to-Network Signaling (C)</li> <li>DSN User-to-Network Signaling for Circuit-Switched Bearer Services (C)</li> <li>Sequence of Messages for DSN Circuit-Switched Calls (C)</li> <li>Message Functional Definition and Content (C)</li> <li>General Message Format and Information Elements Coding (C)</li> <li>Supplementary Services (C)</li> <li>Transmission (R)</li> <li>PCM-24 Digital Trunk Interface (R)</li> <li>Interface Characteristics (R)</li> <li>Supervisory Channel Associated Signaling (C)</li> <li>Clear Channel Capability (C)</li> <li>Alarm and Restoral Requirements (C)</li> <li>PCM-30 Digital Trunk Interface (Europe only) (C)</li> <li>Interoperation of PCM-24 and PCM-30 (C)</li> <li>Analog Trunk Interface (C)</li> </ul>	<ul> <li>UCR Section 5.2.4.7.1.4</li> <li>UCR Section 5.2.4.7.1.4.2</li> <li>UCR Section 5.2.4.7.1.4.3</li> <li>UCR Section 5.2.4.7.1.4.4</li> <li>UCR Section 5.2.4.7.1.4.5</li> <li>UCR Section 5.2.4.7.1.4.6</li> <li>UCR Section 5.2.6.1</li> <li>UCR Section 5.2.6.1</li> <li>UCR Section 5.2.6.1.1</li> <li>UCR Section 5.2.6.1.2</li> <li>UCR Section 5.2.6.1.3</li> <li>UCR Section 5.2.6.1.4</li> <li>UCR Section 5.2.6.3</li> <li>UCR Section 5.2.6.3</li> <li>UCR Section 5.2.6.4</li> </ul>	
E1 ISDN PRI (ITU-T Q.931)	No (Europe only)	Voice Facsimile	Integrated Digital Loop Carrier (C)     MOS (R)     Secure calls (C)	• UCR Section 5.2.6.5 • UCR 5.2.12.8.2.1 • CJCSI 6215.01C	
		Data	<ul> <li>Analog: ITU-T T.4 (R)</li> <li>Modem (VBD) (R)</li> <li>56 kbps switched data (C: PRI only)</li> <li>64 kbps switched data (C: PRI only)</li> <li>NX56 synchronous BER (C: PRI only)</li> <li>NX64 synchronous BER (C: PRI only)</li> <li>Secure data (STE/STU-III) (C)</li> </ul>	DISR     CJCSI 6215.01C     UCR Section 5.2.2.9.6     CJCSI 6215.01C	
1		VTC	• ITU-T H.320 (R: PRI only)	• FTR 1080B-2002	

**Table 3. PBX 2 Requirements (continued)** 

		DSN Line Interfaces	
T 4 C	G '4' 1	Requirements	D. C
Interface	Critical	Required or Conditional	References
2-Wire Analog	Yes	Individual Line (R)     PBX Line (C)     National ISDN 1/2 Basic Access (C)	<ul> <li>UCR Section 5.2.1.1.1</li> <li>UCR Section 5.2.1.3.1</li> <li>UCR Section 5.2.1.3.3</li> </ul>
ISDN BRI NI 1/2	No	Access  • Analog Line (C)  • Loop Start Line (R: 2-Wire Analog only)  • Reverse Battery (C)  • S/T Reference Point (ISDN BRI) (C)	<ul> <li>UCR Section 5.2.1.3.5</li> <li>UCR Section 5.2.4.2.1</li> <li>UCR Section 5.2.4.3.1</li> <li>UCR Section 5.2.4.7.1.2.1</li> </ul>
2-Wire Proprietary Digital	No	Voice • MOS (R) • Secure Calls (C) Facsimile • Analog: ITU-T T.4 (R)	• CJCSI 6215.01C • CJCSI 6215.01C • DISR
		Data  O Modem (VBD) (R)  Secure data (STE/STU-III) (C)	• CJCSI 6215.01C • CJCSI 6215.01C
		VTC • ITU-T H.320 (R: BRI only)	• FTR 1080B-2002
		DSN Features & Capabilities	
Feature/	Critical	Requirements	References
Capability		Required or Conditional	
Common Features	Yes	<ul> <li>Individual Lines (R)</li> <li>Call waiting (C)</li> <li>Three-way calling (C)</li> <li>Add-on transfer, conference calling, and call hold (C)</li> <li>Call Transfer Individual – All calls (C)</li> <li>Call Transfer - Internal Only (C)</li> <li>Call Transfer – Individual – Incoming Only/Add-On Consultation Hold – Incoming Call (C)</li> <li>Call Transfer – Outside (C)</li> <li>Call Transfer – Add-On Restricted Station (C)</li> <li>Call Transfer – Attendant (C)</li> <li>Call Hold (C)</li> <li>Conference Calling – Six Way Station Controlled (C)</li> <li>Call Forward Busy Line (C)</li> <li>Call Forwarding – Don't Answer – All Calls (C)</li> <li>Selective Call Forwarding (C)</li> <li>Call pick-up (C)</li> </ul>	<ul> <li>UCR Section 5.2.4.7.1.2.1</li> <li>UCR Section 5.2.1.1.5.1</li> <li>UCR Section 5.2.1.1.6</li> <li>UCR Section 5.2.1.1.7</li> <li>UCR Section 5.2.1.1.7.1</li> <li>UCR Section 5.2.1.1.7.2</li> <li>UCR Section 5.2.1.1.7.3</li> <li>UCR Section 5.2.1.1.7.3</li> <li>UCR Section 5.2.1.1.7.4</li> <li>UCR Section 5.2.1.1.7.5</li> <li>UCR Section 5.2.1.1.7.6</li> <li>UCR Section 5.2.1.1.7.7</li> <li>UCR Section 5.2.1.1.7.8</li> <li>UCR Section 5.2.1.1.7.8</li> <li>UCR Section 5.2.1.1.8.1</li> <li>UCR Section 5.2.1.1.8.2</li> <li>UCR Section 5.2.1.1.8.3</li> <li>UCR Section 5.2.1.1.8.4</li> <li>UCR Section 5.2.1.1.9.1</li> </ul>
Attendant	No	Attendant Features (C)	UCR Section 5.2.1.2
Public Safety	Yes	Emergency Service (911) Caller (R)     Emergency Service (911) Public Safety Answering Service (C)     Enhanced Emergency Service (E911) (C)	<ul><li>UCR Section 5.2.1.4.1.1</li><li>UCR Section 5.2.1.4.1.2</li><li>UCR Section 5.2.1.4.1.3</li></ul>
Call Processing	Yes	<ul> <li>Origination Treatment (R)</li> <li>Originating Busy (R)</li> <li>Termination Treatment (R)</li> <li>Busy or Idle Status (C)</li> <li>Release Treatment (R)</li> <li>Interruption Treatment (R)</li> <li>Connections (R)</li> <li>Class of Service (C)</li> <li>E&amp;M Lead Signaling States (C)</li> <li>4-Wire Analog User Access Lines (C)</li> <li>2-Wire User Access Lines (C)</li> <li>Interswitch and Intraswitch Dialing (C)</li> <li>Calling Name Delivery (C)</li> <li>Calling Number Delivery (C)</li> <li>Screening (C)</li> </ul>	<ul> <li>UCR Section 5.2.3.1.1</li> <li>UCR Section 5.2.3.1.1.1</li> <li>UCR Section 5.2.3.1.2</li> <li>UCR Section 5.2.3.1.2.1</li> <li>UCR Section 5.2.3.1.3</li> <li>UCR Section 5.2.3.1.4</li> <li>UCR Section 5.2.3.1.5</li> <li>UCR Section 5.2.3.1.6</li> <li>UCR Section 5.2.3.3.1</li> <li>UCR Section 5.2.3.3.2</li> <li>UCR Section 5.2.3.3.3</li> <li>UCR Section 5.2.3.5.1.2</li> <li>UCR Section 5.2.3.5.1.8.1</li> <li>UCR Section 5.2.3.5.1.8.2</li> <li>UCR Section 5.2.3.5.1.8.2</li> </ul>

**Table 3. PBX 2 Requirements (continued)** 

		DSN F	Ceatures & Capabilities (continued)	
Feature/ Capability	Critical		Requirements Required or Conditional	References
ISDN Services	No	<ul> <li>BRI Access, Call Control and Signaling (C)</li> <li>Uniform Interface Configuration for BRIs (C)</li> <li>BRI Features (C)</li> <li>PRI Access, Call Control and Signaling (C)</li> <li>PRI Features (C)</li> <li>Packet Data Features and Capabilities (C)</li> </ul>		<ul> <li>UCR Section 5.2.9.2 Table 5.2.9.1</li> <li>UCR Section 5.2.9.2 Table 5.2.9-2</li> <li>UCR Section 5.2.9.2 Table 5.2.9-3</li> <li>UCR Section 5.2.9.2 Table 5.2.9-4</li> <li>UCR Section 5.2.9.2 Table 5.2.9-5</li> <li>UCR Section 5.2.9.2 Table 5.2.9-6</li> </ul>
Synchronization	Yes	<ul><li>Internal S</li><li>Synchron</li><li>DS1 Traf</li></ul>	ng mode (C) Stratum 4 (R) stratum 9 (R) stratum 9 (R) stration Performance Monitoring Criteria (C) fic Interfaces (C) fic Interconnects (C)	<ul> <li>UCR Section 5.2.10.1.1.2</li> <li>UCR Section 5.2.10.1.2.2</li> <li>UCR Section 5.2.10.2</li> <li>UCR Section 5.2.10.3</li> <li>UCR Section 5.2.10.4</li> </ul>
Security	Yes	• GR-815,	STIGs, and DoDI 8510.bb (DIACAP) (R)	• UCR Section 3
VoIP System	No	VoIP function is conditional. If VoIP is provided, <b>all</b> of the following requirements must be met:  • Voice Quality with MOS of 4.0 or better (R)  • ITU-T G.711 PCM CODEC (R)  • MLPP (C)  • Security (R)  • Network management (C)  • System timing (R)  • Latency ≤ 60 milliseconds (R)  • IPv6 capable (R)  • Service Class Tagging (R)		<ul> <li>UCR section 5.2.12.8.2.1</li> <li>UCR section 5.2.12.8.2.2</li> <li>UCR section 5.2.12.8.2.3</li> <li>UCR section 5.2.12.8.2.4</li> <li>UCR section 5.2.12.8.2.5</li> <li>UCR section 5.2.12.8.2.6</li> <li>UCR section 5.2.12.8.2.7</li> <li>UCR section 5.2.12.8.2.8</li> <li>UCR section 5.2.12.8.2.8</li> <li>UCR section 5.2.12.8.2.9</li> </ul>
	•		Network Gateways	
Gateway	Critical		Requirements Required or Conditional	References
PSTN	No	Trunking	<ul> <li>Positive Identification Control (C)</li> <li>On-Netting (C)</li> <li>Off-Netting (C)</li> <li>Loop Start Line (C)</li> <li>Ground Start Line (C)</li> <li>Immediate Start (C)</li> <li>Delay Dial (C)</li> </ul>	<ul> <li>CJCSI 6215.01C</li> <li>CJCSI 6215.01C</li> <li>CJCSI 6215.01C</li> <li>UCR Section 5.2.4.2.1</li> <li>UCR Section 5.2.4.2.2</li> <li>UCR Section 5.2.4.3.2</li> <li>UCR Section 5.2.4.3.4</li> </ul>

**Table 3. PBX 2 Requirements (continued)** 

LEGEND	) <b>:</b>				
ANSI	American National	FTR	Federal Telecommunications	PCM-24	Pulse Code Modulation - 24
	Standards Institute		Recommendation		Channels
BER	Bit Error Ratio		Video Teleconferencing Services	PCM-30	Pulse Code Modulation - 30
BRI	Basic Rate Interface	GR	Generic Requirement		Channels
C	Conditional	GR-815	Generic Requirements For	PRI	Primary Rate Interface
CAS	Channel Associated Signaling		Network Element/Network System (NE/NS) Security	PSTN	Public Switched Telephone Network
CJCSI	Chairman of the Joint	H.320	Standard for Narrowband VTC	Q.931	Signaling Standard for ISDN
	Chiefs of Staff Instruction	ISDN	Integrated Services Digital	R	Required
DIACAP	DoD Information		Network	S/T	ISDN BRI 4-wire interface
	Assurance Certification and	IT	Information Technology	STE	Secure Terminal Equipment
	Accreditation Process	ITU-T	International Telecommunication	STIGs	Security Technical
DISR	DoD IT Standards Registry		Union - Telecommunication		Implementation Guides
DoD	Department of Defense		Standardization Sector	STU-III	Secure Telephone Unit -3rd
DoDI	DoD Instruction	kbps	kilobits per second		generation
DP	Dial Pulse	Mbps	Megabits per second	T1	Digital Transmission Link Level 1
DS0	Digital Signal Level 0	MFR1	Multi-Frequency		(1.544 Mbps)
DS1	Digital Signal Level 1		Recommendation 1	T1.607	ISDN Layer 3 Signaling
	(1.544 Mbps) (2.048 Mbps	MLPP	Multi-Level Precedence and		Specification for Circuit Switched
	European)		Preemption		Bearer Service for DSS1
DSN	Defense Switched Network	MOS	Mean Opinion Score	T.4	Standardization of Group 3
DSS1	Digital Subscriber	NI 1/2	National ISDN Standard 1 or 2		facsimile terminals for document
	Signaling 1	NX56	Data format restricted to multiples		transmission
DTMF	Dual Tone Multi-Frequency		of 56 kbps	UCR	Unified Capabilities Requirement
E1	European Basic Multiplex	NX64	Data format restricted to multiples	VBD	Variable bit data
	Rate (2.048 Mbps)		of 64 kbps	VoIP	Voice over Internet Protocol
E911	Enhanced 911 Service	PBX	Private Branch Exchange	VTC	Video Teleconferencing
E&M	Ear and Mouth	PBX 2	Private Branch Exchange 2		-

Table 4 depicts the SUT system configurations for Software Version 3.0 SU14. The SUT was tested in an operationally realistic environment to determine interoperability with a complement of DSN switches noted in Table 4. Table 4 lists the DSN switches which depict the tested configuration and is not intended to identify the only switches that are certified with the SUT. The SUT is certified with switching systems listed on the Unified Capabilities (UC) Approved Products List (APL) that offer the same certified interfaces. Figure 1 depicts a notional test diagram. Figure 2 depicts the SUT CIC Software Version 3.0 SU14 test diagram.

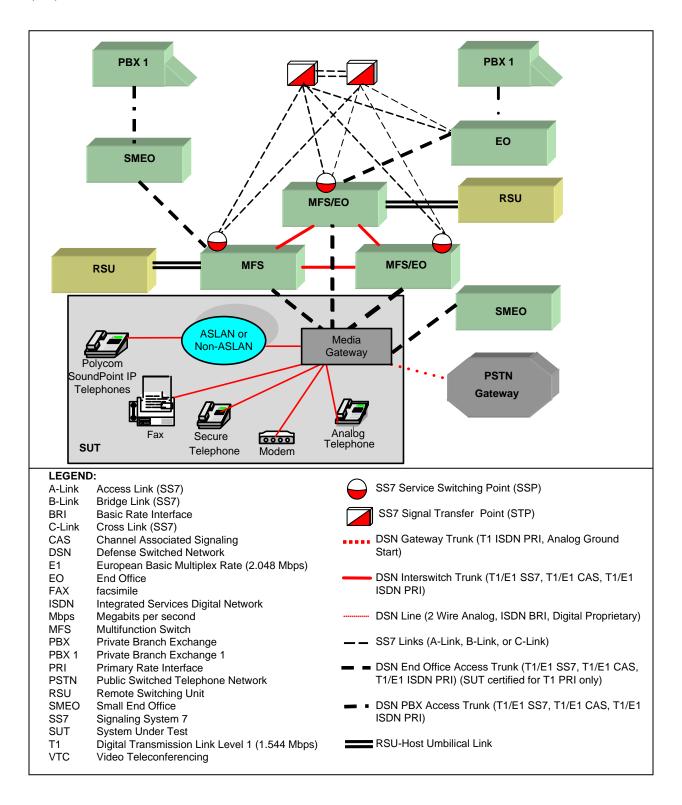
Table 4. SUT CIC 3.0 SU 14 Tested System Configurations

System Name		Equipment					
Required Ancillary	Active Directory						
Equipment	Public Key Infrastructure						
System Name	SysLog Server Software Release						
Siemens EWSD							
(EO,MFS)	19d with Patch Set 46						
	SUT Component	Part Number/Name	Software/Firmware				
	Audiocodes M800 T1 PRI	NA	6.20A.059				
			Embedded Linux Kernel v2.6.21.7 6.20A,055.001				
	Audiocodes M3000 PRI	NA	Embedded Linux Kernel v2.6.21.7				
			IC 3.0.14				
			Internet Explorer 9				
	CIC 2 0 D :	HD D 11 4 D1 200 G5	Microsoft .Net Framework 3.5 SP1				
	CIC 3.0 Primary	HP Proliant DL 380 G5	MSXML 6.20.2003.0 SP2				
			Dialog HMP R3.0_313				
			Windows Server 2003 SP2				
			<u>IC 3.0.14</u>				
			<u>Internet Explorer 9</u>				
	CIC 3.0 Secondary	HP Proliant DL 380 <u>G5</u>	Microsoft .Net Framework 3.5 SP1				
			MSXML 6.20.2003.0 SP2				
			Dialog HMP R3.0_313				
			Windows Server 2003 SP2				
			Microsoft SQL Server 2008				
Interactive Intelligence		HP Server DL 320 <u><b>G5</b></u>	SE (32 bit) 10.0.5500.0				
CIC Rel. 3.0 SU14	5.1.6		MDAC 3.86.3959				
	Database Server		Internet Explorer 9				
			Microsoft .Net Framework 3.5 SP1 MSXML 6.20.2003.0 SP2				
			Windows Server 2003 SP2				
			Solaris 10 11/06 s10s_u3wos_10 SPARC				
			Oracle 11.1.0.7.0				
			Java 1.6.0 31				
			OpenSSL (core Solaris) 0.9.7d				
			Open SSL (open source) 1.0.0f				
	Audiocodes EMS Server	Sun-Fire-V215	Reflection for Secure IT 7.2.0.115				
			Solaris Kerberos				
			(based on MIT Kerberos 5 release 1.4.0)				
			Apache 2.2.21				
			EMS 6.2.94				
			Media Server 3.14.11.13005				
			Internet Explorer 9				
	Media Server 3.0 (x2)	HP Proliant DL 360 G5	Microsoft .Net Framework 3.5 SP1				
			MSXML 6.20.2003.0 SP2				
			Windows Server 2003 SP2				

Table 4. SUT CIC 3.0 SU 14 Tested System Configurations (continued)

	SUT Component	Part Number/N	Vame	Soft	ware/Firmware
					ient .NET Edition v3.0 SU 14
					ess Manager v3.0 SU 14
					IC v3.0.14
	Windows 7			Interaction	Supervisor 3.14.11.13005
	Application Workstation	NA			ctivClient 6.2.0.50
	(site-provided)			Desktop	Validator SE 4.10.0.344
					MSXML 4.0 SP2
				Microsoft	.Net Framework 4.0 SP1
					soft Windows 7 SP 1
					ient .NET Edition v3.0 SU 14
					ess Manager v3.0 SU 14
Interactive Intelligence	Windows XP Pro				action Center v3.0.14
CIC Rel. 3.0 SU14	Application Workstation			Interaction	Supervisor 3.14.11.13005
(continued)	(site-provided)	NA			ctivClient 6.2.0.50
	Note: Application workstation				Validator SE 4.10.0.344
	is only used in 3.0				MSXML 4.0 SP2
	, , , , , , , , , , , , , , , , , , , ,				.Net Framework 3.5 SP1
				Microsoft Windows XP Pro SP3	
					iocodes EMS 6.2.94
	Windows XP Pro Management Workstation (site-provided)			ActivClient 6.2.0.50	
				Desktop Validator SE 4.10.0.344	
		NA			MSXML 4.0 SP2
					.Net Framework 3.5 SP1
					ft Windows XP Pro SP3
				6.20A.055.001	
	Audiocodes MP124 NA		pSOS 2.5.4		
		Telephones			p3O3 2.3.4
Telephone Type		Model			Software/Firmware
retephone Type	Polyoor	SoundPoint 300 serie	NO.		Software/Firmware
		n SoundPoint 400 serie			1
IP				10	3.3.1.0769
	, J	Polycom SoundPoint 500 series w/extension module Polycom SoundPoint 600 series w/extension module			
Analog	1 orycom Soundi o	Generic	ion modu	IC .	NA
	software applications bolded and un		nges from	the baseline Inter	
THE Hardware and	software applications bolded and an	derinica depict the end	inges from	the baseline inter	roperationity certification.
LEGEND:					
CIC Contact Intera	ction Center	NA	Not App	olicable	
	agement System	OpenSSL		cure Sockets Laye	er
	s Wählsystem Digital	PRI		Rate Interface	
DL Product Name		Pro	Professi		
FXS Foreign Excha		pSOS		y Secure Operating	g System
HMP Host Media Pr	R	Release	, F		
HP Hewlett-Packa		Rel.	Release		
	elligence Corp	SE	Standard	d Edition	
IC Interaction Ce		SP	Service		
IP Internet Protoc		SPARC		rosystems Archite	ecture

LEGEND	:		
CIC	Contact Interaction Center	NA	Not Applicable
EMS	Element Management System	OpenSSL	Open Secure Sockets Layer
EWSD	Elektronisches Wählsystem Digital	PRI	Primary Rate Interface
DL	Product Name	Pro	Professional
FXS	Foreign Exchange Station	pSOS	Provably Secure Operating System
HMP	Host Media Processing	Ř	Release
HP	Hewlett-Packard	Rel.	Release
ININ	Interactive Intelligence Corp	SE	Standard Edition
IC	Interaction Center	SP	Service Pack
IP	Internet Protocol	SPARC	Sun Microsystems Architecture
M	Mediant	SQL	Structured Query Language
Mbps	Megabits per second	SU	Software Update
MDAC	Microsoft Data Access Components	T1	Digital Transmission Link Level 1 (1.544 Mbps)
MP	MediaPack	v	version
MSXML	Microsoft Extensible Markup Language	XP	Experience



**Figure 1. SUT Notional Test Configuration** 

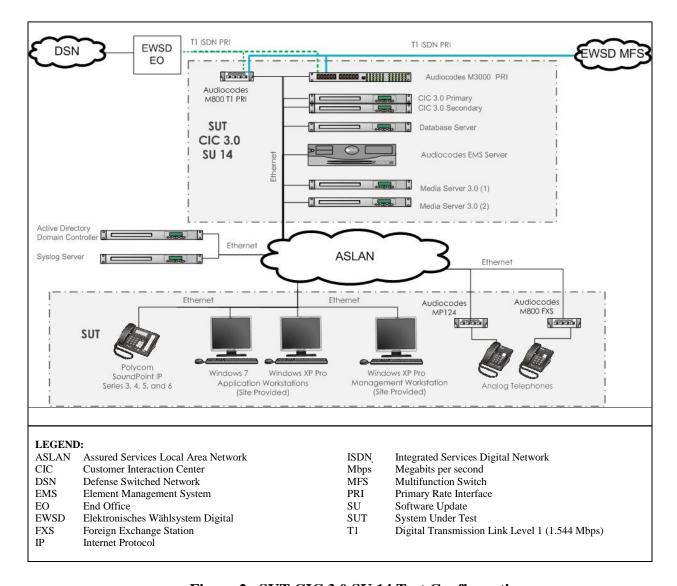


Figure 2. SUT CIC 3.0 SU 14 Test Configuration

5. No detailed test report was developed in accordance with the Program Manager's request. JITC distributes interoperability information via the JITC Electronic Report Distribution (ERD) system, which uses Unclassified-But-Sensitive Internet Protocol Router Network (NIPRNet) email. More comprehensive interoperability status information is available via the JITC System Tracking Program (STP). The STP is accessible by .mil/gov users on the NIPRNet at <a href="https://stp.fhu.disa.mil">https://stp.fhu.disa.mil</a>. Test reports, lessons learned, and related testing documents and references are on the JITC Joint Interoperability Tool (JIT) at <a href="http://jit.fhu.disa.mil">http://jit.fhu.disa.mil</a> (NIPRNet). Information related to DSN testing is on the Telecom Switched Services Interoperability (TSSI) website at <a href="http://jitc.fhu.disa.mil/tssi">http://jitc.fhu.disa.mil/tssi</a>. Due to the sensitivity of the information, the Information Assurance Accreditation Package (IAAP) that contains the approved configuration and deployment guide must be requested directly through government civilian or uniformed military

personnel from the Unified Capabilities Certification Office (UCCO), e-mail: disa.meade.ns.list.unified-capabilities-certification-office@mail.mil.

6. The JITC point of contact is Ms. Anita Mananquil, DSN 879-5164, commercial (520) 538-5164, FAX DSN 879-4347, or e-mail to anita.l.mananquil.civ@mail.mil. The JITC's mailing address is P.O. Box 12798, Fort Huachuca, AZ 85670-2798. The tracking number for the SUT is 0918002.

### FOR THE COMMANDER:

Enclosure a/s

for RICHARD A. MEADOR

Chief

Battlespace Communications Portfolio

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NSG Interoperability Assessment Team

DOT&E, Netcentric Systems and Naval Warfare

Medical Health Systems, JMIS IV&V

HQUSAISEC, AMSEL-IE-IS

UCCO

### **ADDITIONAL REFERENCES**

- (c) Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 6215.01C, "Policy for Department of Defense Voice Services with Real Time Services (RTS)," 9 November 2007
- (d) Office of the Assistant Secretary of Defense, "Department of Defense Unified Capabilities Requirements 2008," 22 January 2009
- (e) Joint Interoperability Test Command, Memo, JTE, "Special Interoperability Test Certification of Interactive Intelligence<sup>®</sup> Inc. Customer Interaction Center<sup>TM</sup> (CIC) Release 3.0 Software Update (SU) 9," 6 May 2011
- (f) Joint Interoperability Test Command, Memo, "Information Assurance (IA) Assessment of Interactive Intelligence Corporation (ININ) Customer Interaction Center (CIC) Release (Rel.) 3.0 (TN0918002)," 6 April 2011
- (g) Joint Interoperability Test Command, "Defense Switched Network Generic Switch Test Plan (GSTP), Change 2," 2 October 2006